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HOSPITAL AT HOME

THE COMING REVOLUTION

Even in the early decades of Victoria's reign hospitals were widely seen as places for the poor or 'dangerously' sick (such as those with communicable diseases) who because of some special misfortune could not be cared for at home. But during the past century such institutions have become firmly established as the main focus of medical, nursing and allied skills. Patients go to hospitals because there they expect to find and receive the best, most sophisticated, care possible.

With their large specialist staffs and complex technical facilities, concentrated 'on site', hospitals are obviously a vitally important element within any modern health service. Nevertheless, there is now growing attention being paid to the concept of caring for seriously ill people at home, offering them intensive domiciliary support for limited periods in order to avoid admission to hospital, or to keep their stay there as short as possible.

There are a variety of factors driving this revival of interest. They include concerns about the high overall costs of in-patient hospital care, coupled with dismay over the long waiting times apparently endured by many people in need of operations like hip replacements; the development of new technologies which make sophisticated home care more viable; improvements in housing standards; expressed patient preferences for home services in contexts ranging from the support of people with terminal illness to maternity and child care; and the hope that, for some, care outcomes will be enhanced by home nursing and allied provision. This last opportunity largely relates to improved rehabilitation for daily life at home (or better still the prevention of dishabilitation caused by stays in hospital). But it may also be noted that about five per cent of hospital patients acquire infections during their in-patient stays[1]. The chance of their doing so is linked directly to the time spent away from home.

Some British proponents of Hospital at Home (HAH) have been particularly concerned with the requirements of the rapidly growing number of individuals aged 75 and over (Figure 1), many of whom live alone[2,3]. There is obviously a need to find appropriate and affordable answers to the already pressing care challenges in this field[4]. Yet the Hospital at Home concept could also prove of value to other groups of people requiring flexible, intermittently intensive, nursing and other medical or paramedical support to maintain their ability and confidence in community living.

For example, some chronically ill individuals with conditions like heart faiure or respiratory impairment would from time to time benefit from such services, as already do a proportion of those affected by HIV. People with AIDS do not usually wish to be segregated from those around them. There is no reason why those that so choose should not be able to live in their own homes for most if not all the time, given the availability of suitable services to help cope with periods of

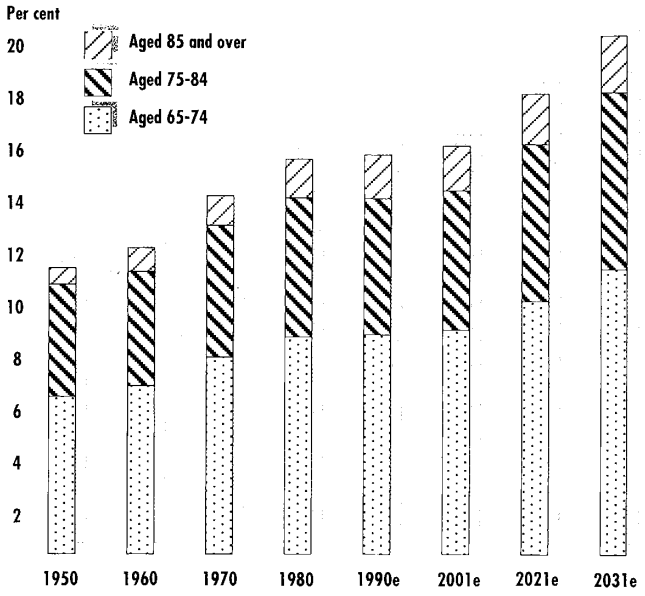

Figure 1. The elderly population expressed as a percentage of the total population, UK[38].

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acute illness.

From the viewpoint of health service planners, managers and leaders it is important to ensure that hospital capacity is not overstretched by either temporary or long term demands which could cost effectively and appropriately be met by community based services. Rational, responsible policy makers should not ignore the availability of superior treatment and care options, even if developing these involves challenging existing expectations and interests. However, having accepted this, those in authority in the NHS and elsewhere also need to pay due regard to the fears of those who may see in change a threat.

It would obviously be undesirable if the provision of HAH came to be seen as an excuse for 'dumping' patients in their community, to the cost of them, their relatives and other informal carers, and professionals like general medical practitioners and community nurses. The provision of extended domiciliary services must therefore be clearly shown to be offering a genuine and secure improvement in the level of care available. Otherwise the concerns of consumers and professionals alike, including consultants (who may in any case be reluctant to reduce their - defensible - hospital bed numbers) are likely to present an impassable barrier.

It is against this background that this *Service Developments* report examines the provision to date of extended domiciliary medical and nursing services in this country, and looks at the opportunities open for further progress. It attempts to clarify the financial costs and savings to be expected from Hospital at Home and to highlight the social and individual patient benefits such a service may generate. In the final analysis it is in relation to these last, and gains in the quality of life to be experienced by people for whom the conduct of normal daily activities represents a significant challenge, that the most vital questions relating to the future of Hospital at Home in Britain now need to be answered. If such services can help those most at risk of losing their independence to live on in their own homes with confidence and dignity, then expenditure on HAH is likely to prove a valuable investment for the entire community.

THE PETERBOROUGH INITIATIVE

There are examples of home health care projects designed for people who would otherwise require hospital admission in many countries, including Canada, the United States and New Zealand[5,6]. They range in nature from nursing intensive schemes to those involving sophisticated capital

IT HOME IN FRANCE

THE FIRST MAJOR FRENCH HAH initiatives began in 1961 in Paris and, independently, in Bayonne. They were originally designed to allow terminally ill cancer patients to die at home, but have since developed into much wider services of particular value to elderly and chronically sick users. Although other localities now have Hospital at Home services, the Bayonne model has become the best known. The area of south west France it serves has a population of approaching a quarter of a million, including the population of Biarritz. Almost one fifth are aged over 65 years, and a tenth over 75.

The Sante Service Bayonne et Region (SSB) is divided into two levels. Less intensive support for clients such as infirm elderly individuals is provided via daily visits of nursing aides, backed once or twice a week by calls from a fully trained nurse and/or, on some occasions, by a professional like a physiotherapist. (This is more or less comparable to the service already offered by District Nursing Services throughout the UK: many parts of France still depend on freelance community nurses who are individually 'hired in' and do not offer as systematically organised a range of support.)

The Hospitalisation a Domicile level offers more intensive skilled nursing and allied support on a daily basis. In the Bayonne area in the mid 1980s there were the equivalent of 70 such 'beds' available (plus nearly 300 of the lower level care places) compared with a maximum of 24 (in 1989) in Peterborough for a similarly sized population. As with the UK HAH example (which today is integrated with the established District Nursing Service in a way the French structures do not allow) the Bayonne service is reported to be popular with both patients and informal carers alike.

One important reason why Hospitalisation a Domicile has apparently been able to expand to meet consumer choice for home care more easily than have equivalent NHS services lies in the funding arrangements available. In France, insurance schemes guarantee support for a given number of HAD places regardless of other service costs, whereas in the UK Districts have limited budgets covering all hospital and community service costs. This means that the introduction of desirable innovations like HAH may be prevented by an inability to cover periods of 'double cost' outlay during transitions from one service pattern to another. However, it is also fair to add that France spends nearly 50 per cent more of its GNP on health care than does Britain.

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equipment such as dialysers and mechanical ventilators, and involve both public and private providers[7].

In the United Kingdom interest in HAH developed in the mid 1970s; it was particularly stimulated by the work of a social worker, Freda Clarke[8]. Her ideas were themselves based on observations of a successful French initiative, the 'Hospitalisation a Domicile' service in Bayonne. The origins of this are described in Box 1.

In the late 1970s a number of experimental projects involving intensive domiciliary health care were conducted in the United Kingdom. For example, in the Medway District of the South East Thames Region an 'Extended Hospital Care' (EHC) scheme was established. (The preliminary studies on which it was based dated back to 1975[9].)

This involved a team of nurses whose task it was to facilitate the early discharge of patients from hospital to their homes, working with the agreement of general practitioners, relatives and the service users themselves. Despite the satisfaction expressed by patients the project was terminated relatively swiftly, in part because of a lack of referrals from consultants[10]. The final report of the project - which was written by a doctor working in community medicine - concluded that 'such schemes should only be initiated at the instigation of a sizable group of consultants so that a sufficient caseload is ensured and a policy of planned admission for early discharge (involving the screening of patients at or even before the time of admission to determine their likely aftercare needs) is implemented'.

The best known British experiment in HAH provision is, however, still surviving, despite the fact that from time to time it has encountered development difficulties related to those indicated above. It was started in Peterborough in late 1978, at which time the local health service was faced with both a rapidly rising - London overspill - population and a shortage of hospital beds.

Initially the Peterborough HAH scheme, which was set up with the direct involvement of Freda Clarke, was organised much along the lines of the Bayonne model[11]. It was at first quite separate from the established District Nursing Service, there being no equivalent provision in France. This proved unsatisfactory; it was soon restructured and is now integrated with the District Nursing establishment. It serves a catchment area of over 200,000 people, 'admitting' 300-400 patients a year.

Some details of the costs and staffing of the Peterborough HAH service are given in Box 2. In outline, the main characteristics of the scheme are as follows:

■ It is open to anyone (except midwifery and psychiatric patients) whose GP and District Nurse will accept medical and nursing responsibility for them. If either patients or, where they are involved, their spouses or relatives who would act as carers are reluctant to use the service then no undue attempt is made to persuade them to do so[12].

■ Patients should use the service either as an alternative to hospital admission or as an aid to early discharge; in the latter case it is offered to those who still need more nursing care than the District Nursing team alone could provide.

■ Once admission has been agreed the District Nurse assesses the nursing care required and liaises with the HAH patient services manager who coordinates admissions, staffing and support. Care is provided by a combination of qualified and unqualified nurses, mainly drawn from a 'bank' of about 100 staff who are called upon on a flexible basis, together with the other paramedical professionals employed by HAH.

■ Each patient receives at least two visits every 24 hours from a team member, who provides treatment and reassesses their condition. If additional nursing care is required it is provided. (Emergency contact with the District Nurse is maintained through two-way radios and it is necessary for patients' homes to have telephones.) The scheme has physiotherapists, occupational therapists and social workers available to it.

■ The average length of stay in a Peterborough hospital at home 'bed' is about 11 days, and there was in 1988/89 an average of nine in-patients per day. (The total number of 'beds' which can be offered at any one time is about 20.) Once accepted, patients usually stay in the scheme until they are ready either for complete discharge from NHS care or transfer to the regular District Nursing Service.

OVERALL, PETERBOROUGH HAH cost a little under £230,000 pounds in the year 1988-89. Around 90 per cent of this money went on staff costs. There are 24 whole time equivalent posts in the project, including a patient services manager, clerical and paramedical support, contracted nurses and the 'bank' nurses who provide flexibility to meet variable patterns and levels of demand. There are about 100 such nurses on the HAH lists, of whom about a third are qualified.

Equipment used by HAH is usually shared with the rest of Community Nursing, which helps to keep costs low. Other expenditures incurred include those relating to disposables and staff travel, although it should be noted that to the extent that informal carers back up NHS support for patients there is also an uncosted private input to HAH support.

In return, Peterborough HAH supplied some 3,600 days of patient care in 1988-89, to over 320 individuals. The total 'bed' cost of about £60 per day, compares favourably with average daily hospital in-patient outlays.

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A major University of Sheffield Medical Care Research Unit evaluation of Peterborough HAH was conducted in the mid 1980s[13]. Using data derived from a sample selected from patients using the scheme in 1985 its conclusions covered four main areas. First, with regard to the economics of Hospital at Home, it found that its average costs were comparable with or lower than those incurred for providing care on a conventional acute hospital ward. This is in line with other studies' results[14.15.16]. But such observations should not be taken to mean that the introduction of Hospital at Home would necessarily be seen as a potential cost saving measure by local hospital managers and clinicians working in areas which have relatively high numbers of expensive hospital beds.

The reasons for, and implications of, this apparent paradox are explained later. For the moment the most important point to stress is that during its first decade or so the Peterborough HAH received financial support from the Sainsbury Family Trusts, which helped both in establishing and maintaining the scheme and funded the Medical Care Research Unit evaluation.

The second significant set of conclusions related to care quality and uptake. Most importantly the mid-1980s study produced evidence that Peterborough HAH provided a good standard of care for ill, and in many cases dying, people who would otherwise certainly have had to be in hospital. Yet some of its patients would probably have been nursed at home even without HAH. The key issues to be resolved here relate to the justification or not of supplying augmented domiciliary care to people who could have survived without it at less cost to the NHS, albeit that the extra services they received may have improved their quality of life and/or maintained their long term ability to remain at home - see below.

The third main group of findings was about consumer satisfaction. Those who had experienced Hospital at Home said they preferred it to inpatient hospital care, and were in general very satisfied with the treatment and support they received. Yet it should be added that the reverse held true for control patients who had been treated in hospital rather than discharged early to HAH - that is, they too were satisfied and convinced that hospital was preferable to domiciliary support. This plasticity of consumer preference means that more sensitive tests of patient wellbeing may be needed if future policies are to be formed as appropriately as possible.

The availability of family support was shown not to be crucial for the functioning of the HAH service - many of its clients live alone. But where relatives did live with or near patients they often played an important role in helping with daily living and other activities. One carer in six said this created a significant problem for them; one in two said that their social lives were restricted.

Nevertheless, the great majority were reported to be glad to have their relatives at home earlier and pleased to have been involved in their care. And it was not found that 'admitting' people to Hospital at Home placed a significant additional load on their general medical practitioners, though the evaluation report noted that there were probably more patients in Peterborough who might have benefitted from the scheme if their family doctor had been one of the regular users.

Finally, with regard to HAH patients' characteristics and conditions, the 1985 sample tended to be older than their counterparts in hospital. The largest single group being cared for then was the terminally ill (there is no hospice in Peterborough) followed by people with chronic cancers and conditions such as stroke. The University of Sheffield researchers argued that the future of Hospital at Home should be a bright one because of the good quality of care it provides and its popularity with providers and users alike. Yet they also commented that 'Peterborough has not been particularly adventurous in exploring how far such a scheme could be extended'. Developments which have taken place since 1985, however, have served to readjust this balance.

EXTENDING THE SCOPE OF HAH: THE HIP REPLACEMENT EXAMPLE

In all over 40,000 hip replacement operations a year are currently being conducted in NHS hospitals. There was a 60 per cent increase in the number done in the decade 1976-86. But despite this, and the fact that 20 per cent or more of UK elective orthopaedic surgery is now paid for privately, the mean waiting time for a total hip replacement in the NHS is about nine months according to the latest available data.

A recent review has shown that the incidence rate of proximal fracture of the femur in the UK has doubled since the 1950s. Both sexes and all age groups contribute to this trend[17]. There has been considerable speculation as to the reasons for such increases, which have occurred throughout the developed world. Ideas put forward include diet related phenomena and the adoption in the first half of this century of a more sedentary life style by much of the population. There has also been debate as to the possible protective

effects of more recent developments, such as an increased tendency for older men and women to exercise and the introduction of hormone replacement therapies.

In practical terms, however, the most important point to emphasise is that for the foreseeable future demand for hip replacement surgery will continue to rise in the UK, creating significant pressure on orthopaedic resources. Even at the start of the 1980s about 20 per cent of all such beds were occupied by people with upper thigh fractures[18]. Measures designed further to shorten the hospital stays of hip replacement patients are likely to be of considerable importance, notwithstanding the progress already achieved in this context[19]. Between the 1950s and the early 1980s in-patient stay durations for this indication fell by around two thirds.

The possible routes forward include improved surgical techniques, better in-hospital rehabilitation and organisational arrangements (like the introduction of enhanced geriatric-orthopaedic liaison procedures to help ensure that patients with multiple problems related to later life do not stay in orthopaedic beds for inappropriate periods[20]) and more sophisticated early discharge support schemes. It is in this area that the Peterborough Hospital at Home scheme has achieved what is arguably its most significant breakthrough.

In 1986 orthopaedic surgeons at Peterborough decided to use the HAH to facilitate early discharge. The Hip Fracture Project they established provides a total package of care, from before patients enter hospital right through to their functional recovery. A survey of 200 consecutive patients with hip fracture who were managed by the Peterborough team - published in 1988 - showed that over half were able to benefit from early discharge to Hospital at Home. Their average hospital in-patient stay was only about eight days, followed by another nine days HAH care; this compares with overall average hospital in-patient stays of 22 days for hip fracture patients in 1985. The mean length of stay in hospital for all the 200 patients in the sample studied was just under 15 days[21].

The quality of medical recovery and social rehabilitation achieved by the home based service was at least as good as that provided by conventional hospital care. For example, the level of emergency readmissions and complications appears to compare well with the experience of other areas[22]. And the liberation of hospital resources to, if other factors permit, increase the number of operations done and so cut waiting times for those in need of surgery has clearly been demonstrated by the Peterborough researchers.

Similar success in the home care and rehabilitation of hip surgery patients has been reported by the COPE scheme (Community Orthopaedic Project in Essex). Based at Oldchurch Hospital, this involves a team with nursing, physiotherapy, occupational therapy and social work expertise. Established with financial support from the King's Fund (and now receiving regional support), the available figures from COPE indicate that overall the service reduces hospital in-patient stays among those patients able to take advantage of it by about 50 per cent - see Figure 2.

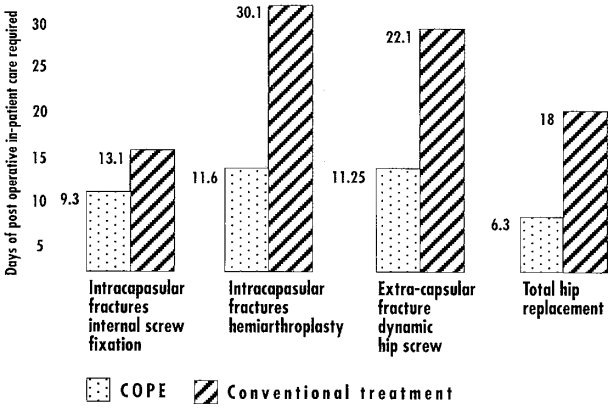

Figure 2. COPE: reductions in post operative in-patient stay achieved for various groups of hip surgery recipient[23].

This work is also of interest because the Oldchurch group has recognised the positive social contact that admission to hospital generates for some isolated, often older, individuals, and has made a special effort to reproduce this in HAH through linking to clubs and other community resources. Extended social networking is potentially a very valuable component of any Hospital at Home service, which could in the long term have a direct (reducing) influence on subsequent demand for hospital services[24].

Several other districts around the Oldchurch area have now decided to introduce similar initiatives. And there is no reason why other types of orthopaedic patient should not benefit from HAH care. Knee replacement surgery is an example of an intervention which has become more frequently conducted during the 1980s - some 10,000 such operations a year are now performed in the UK[25]. Although some limited investment in capital equipment (in continuous passive movement machines) would be needed to extend HAH to this group, knee replacement recipients would appear to be an ideal instance of the type of health care consumer who would benefit from future extensions of Hospital at Home care. Indeed, experience in Canada has already demonstrated this.

Outside departments of orthopaedic surgery certain other patient groups like, say, women undergoing vaginal hysterectomies - may also have the opportunity to significantly reduce their hospital stays through the availability of Hospital at Home. Whether or not they can actually do so depends, of course, on both the availability of appropriate extended domiciliary care and the willingness of hospital based consultants to authorise its use and so reduce their overall need for

in-patient beds.

In some cases there may be clinical fears that HAH would prove unsafe. Such concerns must be respected, although the reality of nursing care on an average hospital ward may sometimes compare relatively poorly with that offered by a good HAH team. Indeed, given the very short average hospital stays (see Figure 3) now achieved in many con-

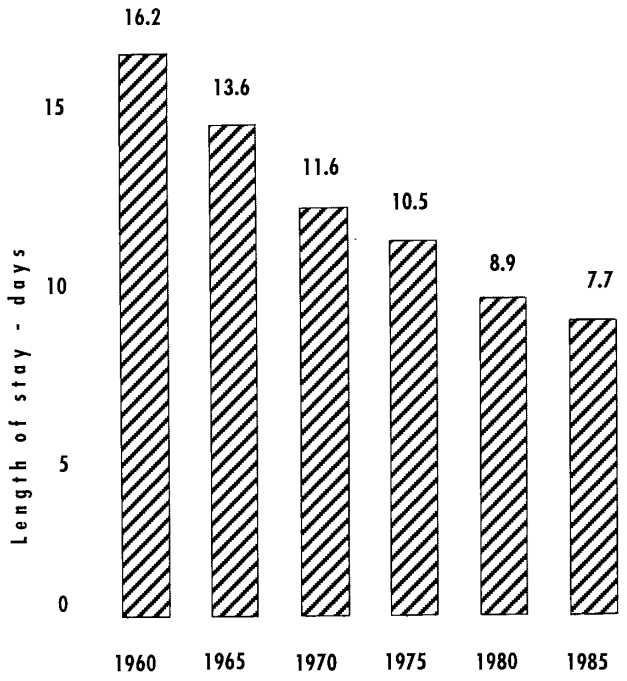

Figure 3. Average length of stay in-patient in acute beds, Great Britain 1960-1985[38].

texts without any sophisticated discharge liaison procedures, and the concern among some commentators that emergency readmissions to hospital appear to have doubled in the past two decades[22], it might be argued that ethical and patient safety concerns demand a greater provision of extended post-discharge domiciliary care to match changes in hospital practice already taking place.

Looking beyond the initial phase of HAH development, when it was of primary value in supporting terminally ill individuals with life expectancies measured in only days or weeks as opposed to years or decades, there are A range of other classes of health service users who might well benefit from such care.
They include:

■ **Elderly individuals affected by conditions such as acute respiratory or urinary tract infections or cardiac failure[2].** Hospital admissions of elderly people who may have some disabilities or chronic health problems and limited support in daily living may seem humane, caring interventions. But inappropriate use of institutions can, as noted early in this *Service Developments* briefing, dishabilitate people and threaten their independence, just as neglect in the community can also prove harmful. The availability of HAH can help such service users over periods of particularly bad health, and at other times provide the confidence generating knowledge that genuine emergencies would engender proper care, regardless of whether or not the local NHS will offer in-patient hospital places to people who need extra support but could end up 'blocking' a bed.

■ **People recovering from strokes.** Such patients account for about five per cent of all NHS hospital spending. An average NHS district will at any one time be caring for about 1,500 stroke survivors who typically occupy over ten per cent of general physicians' acute beds. Although there is an important (and still developing) role for hospital based care in the initial stage assessment and, where possible, treatment of such individuals, there is also evidence that some stroke patients could benefit from a more home centred approach to their rehabilitation[26]. To date British experiments in this area of home care have proved somewhat disappointing, not least due to the apparent reluctance of hospital staff to discharge stroke patients at an early stage. But in future HAH may well be shown to have an important role in the cost effective management of this prevalent condition.

■ **People with HIV**. In the early stages of the spread of AIDS it was generally assumed that hospital was the most, indeed only, appropriate care setting for people with the condition. The hospitals were widely expected to fulfill their historic role of protecting the population from the hazards of the unknown, and to control if necessary by isolation the spread of lethal disease[27]. However, as understanding of HIV infection and its risks has increased there has been a growing emphasis on the desirability of community support for those affected by it; several health authorities have now established specialist 'outreach' services. As argued in the introduction, Hospital at Home type services can be valuable in helping those with AIDS and related conditions who wish to go on living in their own homes to cope with periods of acute illness with a minimum of disruption to their daily lives. In areas where there are a relatively high number of cases, like parts of London, HAH and related concepts may also relieve bed shortages and help solve staffing problems.

■ **Individuals needing relatively complex care at home, like children and adults with muscular dystrophy or cystic fibrosis.** At present domiciliary services for individuals needing more sophisticated care are 'patchy' in Britain. On the one hand the country's record in home dialysis (and the provision of techniques like chronic ambulatory peritoneal dialysis) is comparatively good in international terms. But on the other the availability of services such as mechanical ventilation at home for people with conditions like static or progres-

sive neuromuscular disease (such as muscular dystrophy), sleep apnoea and respiratory failure secondary to skeletal deformity or surgical treatment is limited compared to European and American standards[28]. There are also opportunities for extending NHS (or privately contracted) domiciliary enteral and parenteral feeding facilities[7]. The needs of the growing number of adults with cystic fibrosis provide an increasingly controversial example. These types of service would in some senses require a further development of the usually short term HAH provision pioneered in Peterborough, and may in future raise difficult questions as to the need for direct Regional rather than District level service purchase in the context of relatively low prevalence, high cost conditions. Yet the chance of providing better, cost beneficial support for people so clearly in need of good care must not be neglected.

■ **Service users with mental health problems.** In psychiatric care provision of asylum in hospitals or other non-domiciliary provisions can be especially important. However, there are opportunities to extend the Hospital at Home concept into the mental health field. For instance, regarding the rehabilitation of people with schizophrenic illness it has been known now for nearly 20 years that certain types of domestic environment ('low expressed critical emotion' homes) have a protective effect, and reduce the chance of a recurrence of florid symptoms. But little has been done to help families understand what exactly this means, or to skill them appropriately[29]. An adapted HAH service might provide such education, as well as offering other forms of domiciliary support to people with acute mental health problems for whom hospital admission is not a desired option. The introduction of such innovations might also contribute in the process of helping to provide a new, clearly identified base for psychiatry outside traditional institutions now facing closure.

Whether or not potential developments of the Hospital at Home concept take place will in practice depend on a number of variables. They include, as Box 3 indicates, the quality and extent of planning, staff and allied resources available to District Nursing Services, the precise nature of the conditions being treated and future changes in the therapeutic regimes applicable, and social conditions. These last include housing standards and the willingness and ability of informal carers to assist in the support of sick and/or disabled people 'in the community'.

Such matters are touched on further in the final part of this brief report. However, before that the following section examines some of the important economic considerations which are likely to have a critical influence on the future of Hospital at Home in the United Kingdom.

FACTORS AFFECTING HAH VIABILITY

VIABILITY REDUCING FACTORS	VIABILITY ENHANCING FACTORS
1) Patients in need of constant emergency intervention	1) Housing adequate
2) Frequent high-tech treatments to be given	2) Patient and (where applicable) carer motivation high
3) Very rare case types	3) High quality District Nursing Service, family doctor committed and able
4) Self-care abilities low, little informal carer input	4) Other professional staff, such as physiotherapists, available in the local community
	5) Condition prevalent so District Nursing skills can be built up and maintained
	6) Good local physical and organisational communications, specialist advice available and readmission possible

3

THE ECONOMICS OF HOSPITAL AT HOME

At first the economic case in favour of Hospital at Home may appear so strong that it seems inexplicable that most British health authorities have not already begun to offer such a service. For example, on the question of costs the figures already presented in this paper show that the average cost of an HAH 'bed' in Peterborough - £60 per day or £700 per case in 1989 terms - compares favourably with that of acute care provided on an in-patient basis. Coupled with this extended domiciliary nursing and allied support services designed to provide acute or other sophisticated care outside hospitals have the advantage of:

■ **Being popular with patients and local communities.** One aspect of the easy identification and clear, consumer confidence building, image of the HAH 'brand' is that voluntary groups tend to form around and to support Hospital at Home projects. This has happened in the case of the Oldchurch COPE scheme, and also in Peterborough where friends of the Hospital at Home raise some £50,000 a year in donations.

■ **Providing an attractive and convenient working environment for staff.** This stems in part from the positive 'branding' effect noted above and the clear appreciation of HAH by patients and carers, and in part from the opportunity for flexible (and variable) working hours that HAH projects can offer professionals like nurses who have families. This is an important consideration given anticipated problems in nursing labour supply associated with coming demographic changes, and the advantages to be gained from creating situations in which nurses' skills can be used to the full.

■ **Releasing hospital beds for alternative use or closure, and/or providing new care places at near zero capital cost.**

Seen from the viewpoint of local managers in the NHS, however, the financial picture relating to HAH is not nearly so positive. Faced with immediate day to day problems and working in a system dominated by existing facilities and largely fixed costs, they are often not in a position to take a long term view. Rather, their most pressing concerns are likely to relate to:

■ **The fact that the marginal costs of HAH care (ie the additional cost of one extra unit of provision, over and above the existing service) are nearly as high as its average costs, whereas the marginal cost of a hospital bed may be only ten per cent or so of the average cost figure[30.24].** That is to say that although a bed in an acute ward may on average cost, say, £100 a day to run, the saving from keeping it empty could be as little as £10. This is because ward expenditures on items like staffing and heating remain unchanged. Such factors are part of the reason for disappointing findings about the financial savings generated by HAH schemes in many parts of the world[31.32].

■ **The difficulty managers may have, even in cases where quite large overall numbers of hospital beds could be dispensed with as a result of HAH care extensions, in aggregating such savings into the closure of complete wards.** One reason for this is opposition to the flexible use of beds between specialties. Faced with resistance from traditionally minded hospital based staff and the fact that to date existing (and new) capital resources have been regarded as a 'free' good in the NHS, those responsible for determining health authority policy have had little real incentive to pursue the advantages that Hospital at Home can offer to patients. As far as professionals involved in 'sharp-end' care are concerned, there may also seem little point in freeing beds if economic restraints stop them being used by other patients in need of care.

■ **The fear that the 'wrong' patients are admitted to HAH schemes once they are running.** That is, that instead of being used to cut hospital admission rates and stay durations, Hospital at Home often serves simply to provide better care for people (and families) who would otherwise still have struggled by (or died) 'in the community'. This is a criticism sometimes made of the Peterborough initiative. It may have a degree of validity, although as well as reflecting a potential lack of concern for patient wellbeing, such views could prove short-sighted as far as the pursuit of true value for money in health care is concerned. The discussion below raises the possibility that, at least among elderly and frail service users, significant HAH savings may stem from long term reductions in hospital readmission due to dishabilitation prevention as well as better social and physical rehabilitation.

The conclusion to draw from such observations is not that the nationwide development of Hospital at Home services is an 'uneconomic' proposition. Rather, it is that it is naive to think of HAH provision as a short term, cost cutting, exercise which will appeal to NHS District or Unit general managers with pressing budgetary restraints. The true economic advantages of Hospital at Home care must be seen first and foremost in relation to its ability to improve the

quality of life - or death - for patients, and second in terms of its potential long term impact on health service utilisation rates and overall structural development.

With this understanding in mind it is disturbing to note that so far little of the evaluative work done on HAH has been able to provide comprehensive data on the value of HAH to its users and their families. In the case of the Peterborough study quoted previously[13], for instance, many of the patients included in the sample were close to death: long-term quality of life outcome comparisons between HAH and conventional hospital users are clearly impossible in such cases[33].

However, a recent report from the Medical Research Council's Epidemiology and Medical Care Unit, working in collaboration with consultants from Northwick Park Hospital[24], indicates the potential significance of HAH type care, particularly if acute nursing support provided in patients' own homes is linked with efforts to ensure the establishment of more permanent social support networks. The study compared a community support scheme using care attendants with standard aftercare for their effects on the independence and morale of elderly patients discharged from hospital, and on their subsequent use of health and social services.

Strikingly, it found that after 18 months the group receiving support at the time of leaving hospital was significantly less likely to have been readmitted. The 'controls' spent an average of 30 days back in hospital compared with just 17 for those who had home care. Among the elderly individuals living alone in the 900 strong sample used (mean age 82), those who had had just standard hospital care were twice as likely to have gone back into hospital as those who had had post-discharge community support. Apart from the implications such figures carry for the personal wellbeing of the service users concerned, the researchers pointed out that were such home support available to everyone over 75 leaving hospital an average health District might save about 23 hospital beds a year at a net (marginally costed) saving of some £220,000 (1988 costs). Long term, this could rise to £600,000 a year as the full (average cost) returns gradually emerged. (That is, over £100 million a year nationwide.)

It must be emphasised that these as yet unreplicated findings relate to the provision of mainly social care after hospital discharge, with care attendants seeing patients before they returned home, on their first day back, and for up to 12 hours a week for the subsequent two weeks. But it is reasonable to believe that Hospital at Home schemes could offer similar long term gains, together with those of immediately reduced hospital admissions/stays derived from enhanced home nursing availability. The financial savings and patient welfare gains suggested are of such magnitude that it is vital that health (and social) care planning and purchasing agencies should now begin to pay Hospital at Home options their full attention. It is to the question of where in changing service structures responsibility for this task lies that this *Service Developments* report now turns.

PLANNING BETTER CARE

The Government's 'Working for Patients' proposals and its eventual response to the Griffith's report on community care together present a prescription for profound change in Britain's health and social care system. In essence, they demand a growing distinction and distance between the public agencies responsible for health and residential social care purchase and the public and private bodies 'in the business' of care supply. Proponents of such changes believe that market place competition between, and a plurality of, care providers will bring advantages in terms of consumer responsiveness and choice. They also hope that the separate care purchasers will where necessary be able to ensure care quality and efficiency through careful planning and competent contracting.

Inevitably there will throughout the foreseeable future be considerable controversy as to whether or not such aims are actually being realised, and whether or not service standards are rising or falling. In such uncertain conditions the precise future for services like Peterborough HAH is impossible to predict. But what is clear as far as the advocates of extended domiciliary care schemes are concerned is that the new environment should offer significant opportunities for positive progress.

One example of this relates to the likely changes in the way relevant NHS authorities are to account and charge for their capital assets. In time the heavy capital opportunity costs associated with hospital in-patient services will become more clearly visible to those making day-to-day decisions affecting the balance between hospital and community based care. As this reform impacts upon the health service, so investment in acute care at home via augmented community nursing services should become a more attractive option for local managers.

Another, perhaps even more important, change in the NHS contained in the 'Working for Patients' proposals relates to the new responsibility of Regions with regard to the Family Practitioner Services. For the first time, managers and planners in the NHS as opposed to the Department of

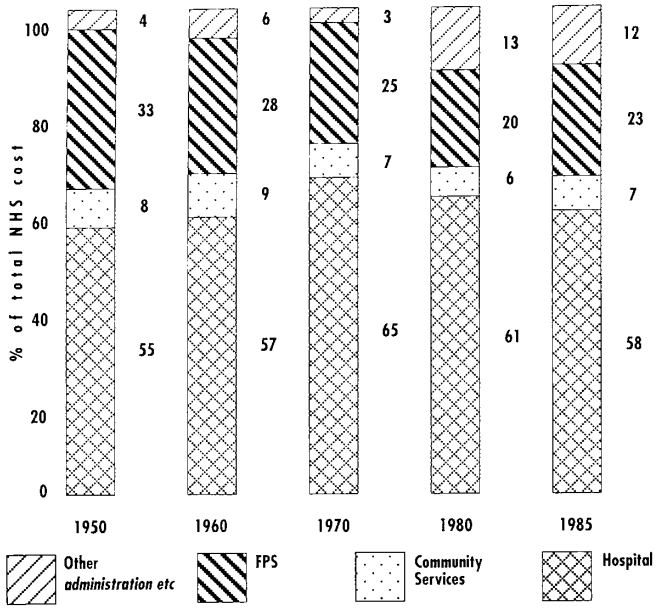

Figure 4. Proportional NHS costs by service, [38]. 1950-1985

Health will have an over-arching concern to ensure the efficient functioning of the totality of the health service, rather than just sections of the hospital/community, primary/secondary, mix. As this shift in interest and focus works its way through the NHS system it should open the way to a more efficient and effective use of resources.

There are those who fear that a bias against community care options, derived from the overwhelmingly hospital based orientation of traditional NHS line managers, will mean that funds will be drawn from the primary care/community sector back into capital intensive institutions. But as the expenditure data presented in Figure 4 indicate, it is the hospital sector which has throughout the life of the NHS dominated expenditure patterns. It is arguably more likely that informed managers seeking better value for money in the health service will turn to community-based service innovations, as and where their advantages can clearly be demonstrated.

As the analysis of Hospital at Home contained in this report indicates, not all questions related to the benefits of HAH can as yet be satisfactorily answered. Nevertheless, it is apparent that although the short term cost cutting impact on systems under immediate financial pressure is likely to be limited, the patient care improvements and probable long term savings that Hospital at Home has the potential to offer are considerable. The logic of this understanding is that during the early years of the 1990s a substantial part of the responsibility for pioneering HAH services should lie with higher level managers in the NHS.

To a degree the Department of Health has already acknowledged the need for such leadership in that it has recently issued a guidance letter drawing attention to Peterborough HAH's success. But it has not provided special development funding comparable to that given by the Sainsbury Trusts and the King's Fund.

The extent to which Regions will be prepared to

HOUSING AND HEALTH

HOUSING CONDITIONS impinge on the health status of populations in many ways. For example, isolated tower block flats may undermine the mental state of women - and men - caring for young families, while cold, damp and/or overcrowded buildings can render those inhabiting them more at risk of contracting infections.

In the case of elderly individuals who are in danger of losing their independence the relationship between health, housing and the organisation of appropriate support services is a particularly important one. Traditionally, such individuals have had three basic choices. First, to try to cope as best they can 'in the community', with or without the help of informal carers or professional support. Second, to enter sheltered housing: this may bring the advantage of warden assistance, but has nevertheless often been seen as being a suitable choice for relatively young, fit individuals. And third, to enter 'a home' or hospital and become dependent on institutional support.

Independent organisations like Anchor (which began as a housing association, and is today more widely concerned with care provision on a non-profit basis) are now concerned with shifting the balance of care in several key ways. First, pioneering schemes to help more people stay in their own homes have been set up. These involve effectively coordinated social, health and housing management support. Second, sheltered housing is being developed more as an option for people with very considerable care and support requirements; wardens and allied staff play an extended need monitoring and support coordinating role. And, third, vigorous efforts are being made to develop institutional models which enable the small minority who have to enter them to preserve to the maximum degree possible their psychological independence and personal dignity and freedom.

The challenge for the 1990s is to ensure that such options are developed in a way which continues to ensure both consumer choice and professional care quality assurance. Considerable skill in social service department contracting and buying policy formation will be needed to prevent local monopolies in residential care from emerging, and from cheap rather than best care practices being adopted. The adequate provision of community based medical and nursing care will also demand planning expertise and integrity, together with well thought out procedures for balancing the sometimes conflicting financial incentives which will continue to influence the health and social care sectors.

4

provide 'start up' funds for HAH innovations is also uncertain. But what is clear is that they have reason and opportunity with their newly combined FPS and DHA supervisory roles to ensure that options for establishing a more effective mix of, and liaison between, hospital, general practitioner and community services is achieved. Better planning will require enhanced collaboration between DHAs and FPSAs, as well as the build up of stronger management structures and more comprehensive information systems[34]. Regional authorities may promote such progress not only through direct managerial interventions, but also through supporting appropriate evaluation and/or demonstration exercises.

It is, however, at the local level where practical responsibility for HAH must in the main lie. Managers and professionals responsible for District Nursing Services will have a particular interest in establishing extended domiciliary care schemes. But everyone involved in the work of both DHAs and FPCs/FPSAs should be concerned to see appropriate developments in this field. It is worth emphasising, for instance, that the attention such innovations demand be paid to the quality of inter-professional communication and cooperation, and individual patient care planning, can benefit an authority's entire approach to care provision. Thus in the Wandsworth District attempts to cope with a combination of rising numbers of old people, acute hospital bed reductions, AIDS, workforce limitations and changing patient expectations have led to across-the-board changes. These include the introduction of a new type of highly trained liaison nurse and a new system of hospital patient discharge management[35].

Awareness of potential gains in patient wellbeing and reductions in hospital admission rates amongst frail elderly people should also act as a potent force for enhancing cooperation between NHS community and Local Authority social service purchasers and providers. The planned combination of intensive, good quality, community based acute (and where appropriate chronic) medical and nursing care with social interventions aimed at securing the fullest possible support for individuals in their localities is clearly the single most vital key to success in this context. If service users and their informal carers do not have confidence that they will be adequately helped through periods of crisis they will naturally tend to seek the apparent security of institutional residential care provision (see Box 4) and/or emergency hospital admission.

Finally, family doctors may also find a common interest with other health and social care providers in taking part in HAH projects. Despite understandable fears that too great a reliance on Hospital at Home care could increase unacceptably GP workloads, practical experience has shown that schemes like Peterborough HAH are workable. This observation has been borne out in the context of several other, smaller scale, projects involving early discharge from hospital, backed by extended home nursing in London and elsewhere.[3]

HAH interventions designed to prevent admissions may sometimes present more challenges to family doctors, in terms of both diagnostic investigation and treatment initiation. But even in more difficult cases closer communication and care sharing between GPs and their local consultant colleagues can help to ensure the viability of admission prevention via extended domiciliary care. And in the majority of instances Hospital at Home offers family doctors more opportunity to keep within their care patients who they are uniquely competent to look after, while also opening up better communication about such individual's needs between GPs and professionals like District Nurses. As far as the latter are concerned, involvement in Hospital at Home provides them with a chance to use more fully their training and professional authority, which should be seen as being at least equivalent to that of an experienced ward sister.

CONCLUSION

The various approaches to Hospital at Home touched on in this report are not all the same, and nor are they of fully proven worth in all their possible applications. Nevertheless, enough is now known about the performance of schemes based on the HAH concept for it to be clear that, appropriately organised, enhanced domiciliary nursing and allied care services can benefit significantly health care consumers, professionals and resource managers alike. The time has now come for more general dissemination and uptake of Hospital at Home throughout the UK. Indeed, in some ways the only surprising thing about this conclusion is that HAH has not figured more prominently in British health care provision since the creation of the NHS in the late 1940s.

The explanations for such tardiness lie in part in financial reality; in part in professional tradition and resistance to change; and in part in the structural divisions which have persisted in this country's health and social care system throughout the last half century. For example, the economic analysis presented in this *Service Developments* briefing shows that Hospital at Home provision is not merely a cheap option, suitable for use by health authorities faced with a sudden financial crisis. HAH schemes can save money, particularly in the long term context. But to do so they will usually require short term levels of expenditure higher than would otherwise have been incurred.

With regard to resistance to change by professionals, it is not surprising that some

hospital based groups should have wished not to alter established patterns of practice, especially since close attention to overall treatment outcomes has rarely been paid at any level of the health service. This factor is linked to the phenomenon of persisting NHS structural division, and the rigidities this has often caused. Britain has a strong tradition of district nursing, and general medical care. But the organisational gulf between the independent contractors of the Family Practitioner Services and the staff of District Health Authorities has often inhibited communication and cooperation. The same has normally been true, unfortunately, of hospital and community services even within Districts, and of the relationship between NHS care providers and those based in Local Authority social service departments.

However, the current process of reform in health and social care provision could help to correct such failures. The changes suggested in 'Working for Patients' and the post-Griffiths community care proposals are likely to promote more effective primary and secondary health care coordination, and may open the way to better combinations of health and social service support for groups such as elderly people 'at risk' of losing their ability to live independently. Whatever the philosophical doubts that some may wish to voice about the proposed changes, few people would question the practical desirability of addressing such issues.

It is therefore vital for the advocates of enhanced home care not to neglect the chance that now presents itself. Leadership from the top in the form of the establishment of a national Community Care Development Agency carrying the brief fully to evaluate and help introduce services like HAH would perhaps be the single most effective step forward. But even failing this there will still be many opportunities for progress to be taken within bodies such as Regional Health Authorities, the new Family Practitioner Service Authorities, and the local care commissioning authorities to be formed as a result of the 'Working for Patients' changes.

On the care provider side either consultant led initiatives or even competitive HAH proposals from consortia of nursing and allied community health service professionals (possibly working with family doctors) may offer ways forward. With regard to elective surgery patients, GPs will have a particular incentive to seek the best possible value for money in their aftercare. And pressure from consumer groups and individuals concerned to see more and better care available at home could also stimulate shifts in the focus of health care delivery.

Hospital at Home is not, of course, the answer to all health care problems, now or in the foreseeable future. Conventional hospitals will never be relegated to the place of mere relics from a bygone age. But as the twenty-first century approaches it is becoming clear that much more care could be provided outside such institutions, to the positive advantage of the entire community. The challenge is to make sure that this new service potential is realised without in the process harming or reducing the elements of existing hospital provision which remain relevant to, and necessary for meeting, health care needs in Britain.

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REFERENCES

1 Currie E and Maynard A (1989). *The Economics of Hospital Acquired Infection.* Discussion Paper 56. Centre for Health Economics. York.
2 Currie C T, Smith R G and Williamson J (1979). *Age and Ageing*, 8, 149-152.
3 Currie C T, Lindsay E B, Doull C, Ravetz C, Smith R G and Williamson J (1980). *Age and Ageing*, 9, 173-180.
4 Acheson E D (1982). *The Lancet*, II, 592-594.
5 Judge K (1989). Paper presented to King's Fund Centre Conference on Acute Care at Home, June 1989.
6 Auckland Hospital Board (1967). *Handbook of Hospital, Domiciliary and Welfare Services.*
7 Johnstone C (1989). Paper presented to King's Fund Centre Conference on Acute Care at Home, June 1989.
8 Clarke F (1976). *Health and Social Services Journal*, 86, 44.
9 Elliot L M and Armstrong C (1975). *A feasibility study into EHC with Medway Health Authority.*
10 Elliot L M and Rogers H S (1982). *Final Report on Extended Hospital Care.*
11 Anand J K, Pryor G A and Morgan T T (1989). *Health Trends*, 21, 46-48.
12 Allen E (1989). Paper presented to King's Fund Centre Conference on Acute Care at Home, June 1989.
13 Knoweldon J, Westlake L, Clarke S and Wright K (1988). *Evaluation of Peterborough Hospital at Home.* Medical Care Research Unit. University of Sheffield.
14 Mowat I G and Morgan R T T (1982). *British Medical Journal*, 284, 641-643.
15 Wright K G and Haycox A. *A Pilot Study of Peterborough Hospital at Home.* University of York.
16 Gibbins F J, Lee M, Davison P R, O'Sullivan P, Hutchinson M, Murphy D R and Ugwu C N (1982). *British Medical Journal*, 284, 330-333.
17 Boyce W J and Vessey M P (1985). *The Lancet*, I, 150-151.
18 Lewis F A (1981). *British Medical Journal*, 283, 1217-1220.
19 Ceder L, Stromquist B and Hansson L I (1987). *Clinical Orthopaedics and Related Research*, 218, 53-57
20 Harrington M G, Brennan M and Hodkinson H M (1988). *Age and Ageing*, 17, 129-133.
21 Pryor G A, Myles J W, Williams D R R and Anand J K (1988). *The Lancet*, I, 401-403.
22 Henderson J, Goldacre M J, Graveney M J and Simmons H M (1989). *British Medical Journal*, 299, 709-713.
23 MacLellan G E and King R J. *Health Trends.* In press.
24 Townsend J, Piper M, Frank A 0, Dyer 5, North W R 5 and Meade T W (1988). *British Medical Journal*, 297, 544-547.
25 Bulstrode C (1987). *British Medical Journal*, 295, 514.
26 Wade D T, Langton-Hewer R, Shilbeck C E, Bainton D and Burns-Cox C (1985). *The Lancet*, I, 323-326.
27 Durman L (1989). Paper presented to King's Fund Centre Conference on Acute Care at Home, June 1989.
28 Branthwaite M A (1989). *British Medical Journal*, 298, 1409.
29 Taylor J A and Taylor D G (in press). *Mental Health in the 1990s - from custody to care?* Office of Health Economics. London.
30 Haggard E (1989). Paper presented to King's Fund Conference on Acute Care at Home. June 1989.
31 Hendrick 5 C and Inui T S (1986). *Health Services Research*, 20:6, 851-879.
32 Berk A A and Chalmers T C (1981). *New England Journal of Medicine*, 304:7, 393-397.
33 Wright K G (1989). Personal communication.
34 Marks L (1989). *Planning Primary Care.* The King's Fund Centre. London.
35 Gould T and Hennessy D (1989). Paper presented to King's Fund Centre Conference on Acute Care at Home. June 1989.
36 Morris D E (1983). *Age and Ageing*, 12, 323-328.
37 Fletcher P (1989). Personal communication.
38 Chew R (1987 and 1989). *OHE Compendium of Health Service Statistics.* Office of Health Economics. London.